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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 10/017,260 | 12/18/2001 | John C. Opfer | SC-5325 | 6090 |

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| EXAMINER |
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KYLE, MICHAEL J

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| ART UNIT | PAPER NUMBER |
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3676

DATE MAILED: 03/21/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/017,260

Applicant(s)

OPFER ET AL.

Examiner

Michael J Kyle

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 27 December 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1 and 4-7 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1 and 4-7 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Specification

1. The specification is objected to as failing to provide proper antecedent basis for the claimed subject matter. See 37 CFR 1.75(d)(1) and MPEP § 608.01(o). Correction of the following is required: Claim terminology “first means”, “second means”, “third means”, and “fourth means” must be included in the specification, or these limitations be replaced in the claim with terminology that is used in the specification.

Claim Objections

2. Claims 1 and 4-7 are objected to because of the recitation of “first means”, “second means”, “third means”, and “fourth means”. This terminology is not supported by the specification making it unclear which features these limitations are actually referring to. All claimed terminology must be consisted with and supported by the specification.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1 and 4-7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Flory (U.S. Patent No. 4,361,165) in view of Wood (U.S. Patent No. 1,778,477). With respect to

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claims 1 and 7, Flory discloses a pressure relief arrangement comprising a sealing member (92) between two housing portions (12, 14), first means (54, 58) for applying compressive sealing force between the two housing portions, and second means (52, 40a, 40b) operative with the first means and independent of the sealing member, such that the first means applies the compressive sealing force between the two housing portions solely through the second means (52, 40a, 40b). The second means comprise at least one member (52) loaded in shear and becoming disintegral in response to overpressure exceeding a predetermined value. Examiner asserts that Flory discloses the second means to comprise a plurality of rupture disc members (52) having predetermined portions of reduced cross section because considers each pin (52) to be a rupture disc member. Each of these pins (52) has a reduced cross section when compared to an outer end portion of the pin. However, to more clearly show this feature, examiner further relies on the teachings of Wood.

5. Wood teaches a disc-shaped member (15) with predetermined, circumferentially arranged portions of reduced cross section (16). Wood uses the portions of reduced cross section (16) to concentrate strain, and in turn stress, to a predetermined point on the shear pin to control where failure is to occur, so as not to damage other parts of the machine (page 1, lines 1-11). It would have been obvious to one having ordinary skill in the art at the time of the invention to include the portions of reduced cross section shown by Wood on the pin, or disc shaped member of Flory, in order to allow failure at a predetermined area of the disc shaped member. The portions of reduced area of Wood will also provide consistent failure results at a known stress value.

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6. With respect to claim 4, the combination of Flory and Wood discloses the first means (54, 58) and rupture disc members (52) are dimensioned and assembled to focus applied forces in a predetermined manner to the rupture disc members.

7. With respect to claims 5 and 6, Flory discloses the first means to include third means (54) for focusing applied forces to the second means. The first means further comprises fourth means (42 and the axial through hole in flange 50) for aligning the first, second, and third means.

Response to Arguments

8. Applicant's arguments with respect to claims 1 and 7 have been considered but are moot in view of the new ground(s) of rejection. The claims are now rejected by the combination of Flory and Wood. Wood explicitly shows a disc shaped member with portions of reduced cross section area that is subjected to a shear force.

Conclusion

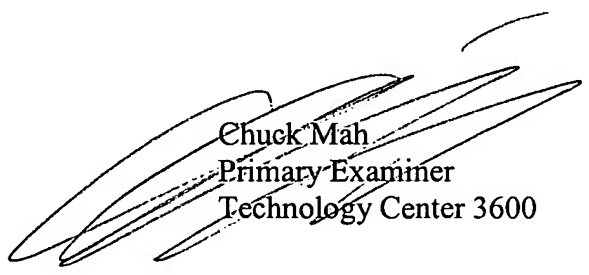
9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael J Kyle whose telephone number is 703-305-3614. The examiner can normally be reached on Monday - Friday, 8:30 am - 5:00 pm.

10. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Judy Swann can be reached on 703-306-4115. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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11. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

mk



Chuck Mah
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